

GILA RIVER BASIN

09510180 ROCK CREEK NEAR SUNFLOWER, AZ

LOCATION.--Lat 33°43'49", long 111°30'28", in SE¹/₄ sec.35, T.5 N., R.8 E., Maricopa County, Hydrologic Unit 15060203, on left bank 300 ft upstream from culvert on State Highway 87, 0.3 mi upstream from mouth, and 10 mi south of Sunflower.

DRAINAGE AREA.--15.2 mi².

Annual peak discharges

| Water year | Date | Annual peak discharge (ft ³ /s) | Discharge codes | Water year | Date | Annual peak discharge (ft ³ /s) | Discharge codes |
|------------|----------|--|-----------------|------------|----------|--|-----------------|
| 1963 | 08-16-63 | 262 | | 1971 | 08-19-71 | 924 | |
| 1964 | 08-01-64 | 916 | | 1972 | 06-22-72 | 151 | |
| 1965 | 01-07-65 | 175 | | 1991 | 03-01-91 | 1,140 | |
| 1966 | 12-22-65 | 1,900 | | 1992 | 08-23-92 | 1,140 | |
| 1967 | 07-16-67 | 570 | | 1993 | 01-08-93 | 2,550 | |
| 1968 | 12-19-67 | 1,230 | | 1994 | 11-14-93 | 242 | |
| 1969 | 01-27-69 | 43 | | 1995 | 03-06-95 | 1,240 | |
| 1970 | 09-05-70 | 1,540 | | 1996 | 09-11-96 | 65 | |

Discharge rating table developed September 1991

| Gage height (ft) | Discharge (ft ³ /s) | Gage height (ft) | Discharge (ft ³ /s) |
|------------------|--------------------------------|------------------|--------------------------------|
| 4.0 | 126 | 6.5 | 1,570 |
| 4.5 | 258 | 7.0 | 2,150 |
| 5.0 | 458 | 7.5 | 2,850 |
| 5.5 | 735 | 8.0 | 3,700 |
| 6.0 | 1,100 | 8.5 | 4,700 |

Magnitude and probability of instantaneous peak flow based on period of record 1963-72, 1991-96

| Discharge, in ft ³ /s, for indicated recurrence interval in years, and exceedance probability, in percent | | | | | |
|--|----------|-------|-------|-------|-------|
| 2 | 5 | 10 | 25 | 50† | 100† |
| 50% | 20% | 10% | 4% | 2% | 1% |
| 573 | 1,520 | 2,410 | 3,810 | 5,030 | 6,390 |
| Weighted skew | (logs) = | -0.42 | | | |
| Mean | (logs) = | 2.72 | | | |
| Standard dev. | (logs) = | 0.54 | | | |

† Reliability of values in column is uncertain, and potential errors are large.

Basin characteristics

| Main channel slope (ft/mi) | Stream length (mi) | Mean basin elevation (ft) | Forested area (percent) | Soil index | Mean annual precipitation (in) | Rainfall intensity, 24-hour | |
|----------------------------|--------------------|---------------------------|-------------------------|------------|--------------------------------|-----------------------------|--------------|
| | | | | | | 2-year (in) | 50-year (in) |
| 412 | 7.3 | 3,680 | 0.2 | 3.0 | 16.0 | 2.3 | 5.0 |

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09510180 ROCK CREEK NEAR SUNFLOWER, AZ--Continued

